ately in all genito-urinary infections when the patients present themselves. In the chronic cases the percentage of cures is lower and the improvement slower. This condition is due in most cases to some anatomical condition causing stasis or to some associated pathological condition, such as prostatitis, seminal vesiculitis, diverticuli, etc. 'Phage therapy improves many chronic cases, and is a valuable adjunct in the treatment of anatomical deformity.

It is of utmost importance, when obtaining specimens for culture, that the culture be not contaminated, because a 'phage developed for a contaminating organism would probably have no beneficial effect.

Doctor Schultz has laid particular emphasis on larger doses and sufficient rest following administration. Hospitalization is necessary in only a small percentage of cases.

Regarding the secondary invader in gonorrhea, I took ten patients coming to me within the first forty-eight hours after the appearance of the urethral discharge, and after careful preparation I made cultures of the pus located well in the urethra. These cultures were then sent to Doctor Schultz, and every one of them showed a secondary invader, practically all of them belonging to the staphylococcus group. In two of these cases, 'phages which completely lysed the secondary invader was administered to the patients as mentioned in the above article. These two patients were entirely well, with no complications, within twenty-one days after the beginning of the discharge. This interesting work has prompted us to start another experiment, namely, making cultures at weekly intervals (including prostatic and seminal vesicle fluids in the later stages) to see if the secondary organisms change. I have also started, experimentally, the use of polyvalent staphylococcus 'phage in the beginning of some of the acute cases of gonorrhea. Having had quite a number of successful cases, I am very grateful to Doctor Schultz for the help and advice which he has given me in the treatment of many of these genito-urinary infections, as well as for his interest and co-operation in experimenting with the secondary invader in gonorrhea.

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DONALD A. CHARNOCK, M. D., AND A. ELMER BELT, M. D. (523 West Sixth Street, Los Angeles).—The problem of bacteriophagy is steeped with interest and intrigue. It is a penetration into the dim world of which we know little but which opens up vistas of thought that point to important discoveries.

The work of Doctor Schultz and his coworkers of the bacteriophage laboratory at Stanford has been excellent. Their careful accumulation of data has taken much effort.

Their figures bear out in the main the results we have experienced in approximately one hundred cases with 'phages furnished for the most part by Doctor Schultz over a period of nearly two and a half years. In pyelocystitis we have used 'phage in both old and new cases. It has been our experience that the recent cases of an acute nature are more amenable to 'phage therapy than the stubborn chronic cases which have resisted all forms of treatment. We have often seen a new growth of another organism occur in these cases after the first invader has apparently been wiped out by the 'phage.

We have not used 'phage therapy for prostatitis or seminovesiculitis, nor have we used it with Neisserian infections. Our experience has been mainly with pyelocystitis. Our most gratifying results with bacteriophage have come from its use in wound infections. Renal surgery is so often complicated by wound infections that it has been our practice to take cultures at operation and have a 'phage available at the first sign of wound breakdown. The results in these cases is little less than magic. When possible we obtain a 'phage for direct use in the wound at operation. This is greatly simplified by the polyvalent preparation.

DENTAL PROBLEMS OF CHILDREN*

By CHARLES A. SWEET, D. D. S.
Oakland

PHYSICIANS recognize the fact that a clean mouth is one of the requisites to good health. The dentist knowing this has endeavored to make mouths healthy, but in many cases has failed. His failure in most instances could be eliminated if the physician would insist that the mouths of all children under their care be placed in a normal condition.

How much easier it is for us to insist that a child be cared for before defects are present than to have the patient, after a sleepless night, come with a toothache, and the parent with a belief that carious deciduous teeth need not be cared for. Also that the forceps are the surest and best remedy for the relief of this pain, without taking into consideration the future damage that will be caused by this procedure.

PROPHYLAXIS

If the child is referred to the dentist at two years of age, it is his duty not only to make a thorough examination of the child's mouth, but he should endeavor to educate the parent on the necessity of a healthy mouth, because 70 per cent of all infections enter the body through the oral cavity.[1]

During this first visit to the dentist, the child's teeth should be thoroughly cleaned and the parent given a practical demonstration of the proper brushing on the teeth. This brushing always seems simple, but I have yet to have a parent who could effectively brush his or her child's teeth. In many instances they are resistant to this instruction, evidently feeling it is a reflection on them, but in the majority they are eager for knowledge.

This first visit should be repeated every four months thereafter, and each time the teeth should be thoroughly polished and examined for any defects such as cavities or improper bite. A check-up should be made of the parent's brushing and any points missed in the instruction at previous visits should be stressed until the home care is perfected.

Physicians know that children always imitate, and if the example set is proper the child will become an efficient caretaker of his own mouth and will reduce greatly the incidence of caries. When the parent is willing we spend from fifteen to thirty minutes on each patient instructing the parent in the art of brushing the teeth clean. The child, if over the age of six, is instructed at the same time. At each visit thereafter further instruction is given until we feel they have mastered the technique. We also emphasize the fact that the night-time is the most important, for while we sleep the saliva does not flow or the tongue move and, as they both have an inhibiting action, we must retire with a clean mouth.

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* Read before the Pediatric Section of the California Medical Association at the sixtieth annual session at San Francisco, April 27-30, 1931.

MALOCCLUSION

I am satisfied that 75 per cent of all malocclusions may be avoided or corrected between the ages of two and five years with very little mechanical manipulation if there is coöperation of the parent and the dentist. Of course the dentist must have some knowledge of this phase of children's work and a determination to guide his patients along a normal course. The greatest hindrance to this is the parent's insistence of a guarantee that there will never be the necessity in the future for orthodontic interference and the parent's failure to realize that this type of work is worth a reasonable fee and should not be gratis.

It is impossible to estimate the great amount of good done for the patient with this work; therefore the value of this service is very seldom appreciated by the parent.

CARIES

All carious teeth should be filled as soon as the cavities are detected because (1) they are possible foci of infection; (2) cavities inhibit proper mastication and so bring about a lack of development of the maxilla and mandible; (3) because caries expose the rest of the teeth in the mouth to a like destruction; and (4) it is our duty to eliminate pain whenever possible.

Teeth, whether permanent or deciduous, are deserving of our best attention. Therefore there is no place in dentistry for the temporary fillings (unless they be temporary) or for the painting of silver nitrate on carious areas to cover our own lack of ability or desire to do proper work. All deciduous teeth should be restored by a metal restoration such as silver amalgam, gold or copper amalgam. The use of cements or gutta percha is contraindicated except as temporary fillings.

These metallic restorations should be contoured to resemble the original outline of the tooth, polished on all surfaces, and be given proper relationship to the other teeth and not impinge on the gingival tissues. With these requirements in mind, very little training is needed by the physician to observe how well his children are being dentally cared for.

In the last ten years much has been written on nonvital teeth, but little attention or study has been paid to deciduous teeth that also too frequently lose their pulps by trauma, and by infection through the process of caries. Many dentists and physicians, because of their belief that all nonvital teeth are foci of infection condemn the deciduous teeth without giving much thought to them. I can assure you that after twelve years' work with these nonvital deciduous teeth that at least 75 per cent may be retained in a healthy condition if properly treated and restored to normal occlusion. The reason for our success with these teeth is probably due to the fact that a continuous absorption process is going on, not only of the roots themselves, but the alveolar process surrounding the roots and the mucous membrane.

Even though we may care for the teeth properly as dentists, we still may not be able to eliminate all dental disorders, for infections, diet, and bodily mechanics are all a part of the process of tooth destruction and no one by itself is the only causative factor. We as dentists can minimize these accessory disorders, but without the aid of physicians, who are capable of caring for these predisposing factors, we will not be able to attain our ideal in preventive dentistry.

In conclusion, we may quote Johnson's statement: "No child should ever be permitted to grow up with a physical handicap that modern science can correct." [2]

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REFERENCES

1. Dental Welfare Foundation.
2. Johnson, C. N., D. D. S.: Child Welfare.

THE DOCTOR AND THE INDUSTRIAL COMMISSION*

By O. F. McSHANE, ESQ.
Utah Industrial Comission

IT is a little out of the ordinary for a layman to appear before a body of professional and scientific men to discuss matters of which they have made a life study, but on your invitation I am glad to discuss some topics in which we are mutually interested.

The subject assigned to me is: "The Doctor and the Industrial Commission," and on this I submit the following:

MUTUAL CONFIDENCE NECESSARY

A mutual confidence and sympathetic understanding between the medical profession and the Industrial Commission is a matter of prime importance if a proper functional relationship is to be established and maintained. This desired relationship can only become a fact when each of us approach, with a single purpose, our task of reconstructing and assisting a broken workman to readjust himself economically. That purpose should be to give the injured man the maximum recovery within a minimum period of time. The longer a patient is away from employment the more difficult to get him back to work. An unreasonably long period of disability frequently results in the patient commencing to feel sorry for himself. When this symptom develops, changes may take place in the man, from a morbid lack of interest in recovery to actual insanity. Our objective should be constantly kept in view, unvaried by any selfish interest or semblance of favoritism. Such procedures will materially assist in a speedy consummation of the desired end.

COMMISSION AND MEDICAL WORK MUST BE HARMONIOUS

The Commission and a physician in all cases must perform their respective tasks in such fashion as to simulate a perfect synchronization

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* From the Utah State Industrial Accident Commission.

* Read before the Utah State Medical Association at its 1931 annual session at Salt Lake City, September 9-10, 1931.